

REMARKS

Applicants wish to thank the Examiner for the courtesy extended in reviewing and acting on the instant application in the Office Action mailed January 22, 2007. Claims 1-31 are pending in this application. Applicants thank the Examiner for allowing claims 1-15. Applicants have canceled claims 17-31. Applicants have amended claim 16 to incorporate the subject matter of claim 24 and interviewing dependent claims. Applicants thank the Examiner for otherwise finding claim 24 allowable. Favorable reconsideration of this application is requested in view of the above amendments and the following remarks.

Claims 14 and 26 are objected to for apparent improper form. These claims have been amended to address the Examiner's concerns. Favorable reconsideration is requested.

Claims 6-20, 23, 25 and 27-31 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Jongen (U.S. Pat. No. 6,777,692 B2). The Examiner has also rejected claims 16-20 and 25-31 under 35 U.S.C. § 102(e) as anticipated by Hansen (U.S. Pat. No. 6,763,085 B2). The Examiner has further rejected claims 7, 8, 11-14, 21, 22 and 26 as obvious under 35 U.S.C. § 103(a) over Jongen in view of Tetzlaff.

These rejections, as they may apply to the claims presented herein, are respectfully traversed.

The claimed invention is a process and apparatus in which the density of a product, which is to be irradiated, is established before a stack is placed on a turntable. Based on the density of a product, the optimal size of a product stack having that density is then determined and the optimally sized stack arranged and loaded onto the rotation means. Providing a stack of an optimal size obviates the need for having irradiation parameters that are varied during the irradiation of the product stack. Rather, a stack of the predetermined optimal size is loaded on the rotation means and the irradiation occurs without the use of collimators to adjust the radiation beam.

According to Jongen, the density of a product is never measured; only the MAXIMUM effective thickness of a product tray is calculated (Jongen in col. 1, lns. 37-43).

Put simply, Jongen does not use density but, rather, uses effective thickness. Further, effective thickness is not used to determine optimal size but only the type of radiation to be used.

Applicant's claimed method recites limitations which are novel and nonobvious in view of Jongen.

For this reason among others, Jongen does not anticipate the claimed invention.

Applicants have also traversed the Examiner's rejection of claims 16-20 and 25-31, based upon Hansen, U.S. Pat. No. 6,763,085. Applicants note the Examiner's comment on page 6 of the latest action, concluding that measurement of stack density carries no patentable weight. Applicants traverse this basis for maintaining the rejection.

Quite the contrary, Applicants note that Hansen teaches no means or element for determining the density of the products to be irradiated. As such, Hansen does not teach this element of the claimed invention. As Hansen teaches no means for measuring the density of the sample, Hansen does not meet each and every element of the claimed invention. Accordingly, Hansen does not anticipate the claimed invention.

Favorable reconsideration is respectfully requested.

Applicants have also traversed the Examiner's rejection of claims 7, 8, 11-14, 21, 22 and 26 as obvious based upon Jongen in view of Tetzlaff. Applicants have noted the deficiencies with Jongen earlier. Jongen fails to teach 1) any measurement of sample density or 2) use sample density as an indicator for determining optimal stack size to optimize throughput or DUR. All of the claims cited herein depend from primary independent claims which have this type of limitation, either in process step or apparatus element.


Tetzlaff is cited as teaching the utilization of radiation - as improved - by disposing irradiated goods such that a cavity remains around the axis of rotation of the pallet. Tetzlaff simply fails to cure the deficiencies of Jongen. Tetzlaff fails to teach the evaluation of product density in a way that assists in optimizing dosage uniformity ratio.

Accordingly, the claimed invention is not obvious and is otherwise patentable over the cited references.

Favorable reconsideration of the claimed invention is respectfully requested.

Based on the foregoing, reconsideration and allowance of the pending claims is respectfully requested.

Respectfully submitted,

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